

RocketPod™ Update

Rex Ridenoure, CEO

**Ecliptic Enterprises Corporation
Pasadena, CA and Moffett Field, CA**



2007 Apr 19-21

CubeSat Developers Workshop

Boeing / Huntington Beach

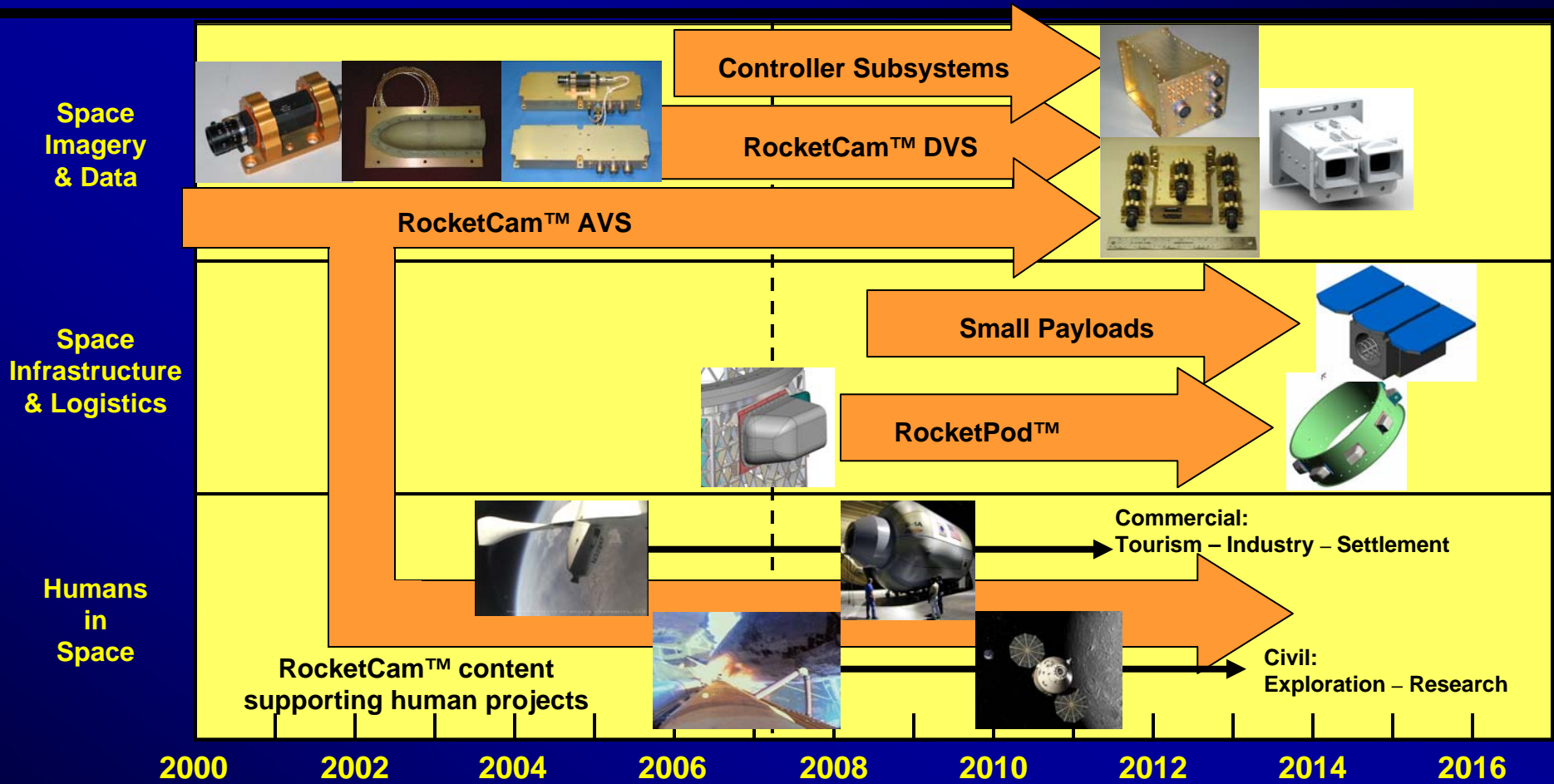
Ecliptic Products



- **RocketCam™: Get the picture.**
- **RocketPod™: Get the ride.**



Ecliptic Products and Markets



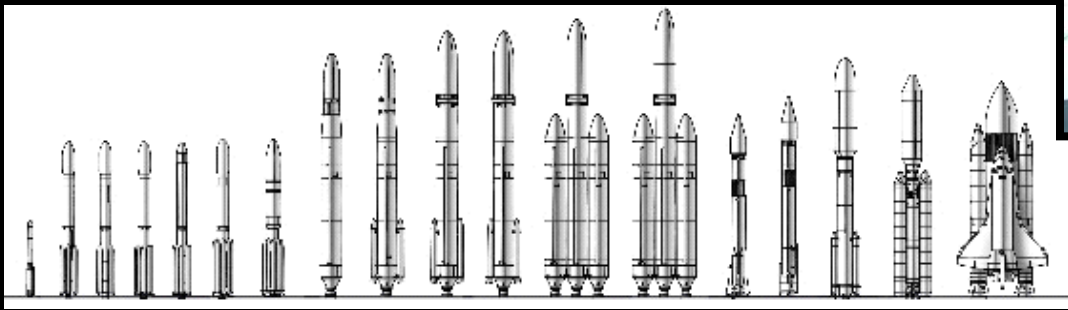
Proven technologies, integration concepts, interfaces and performance

Established contracting processes for a broad range of platforms

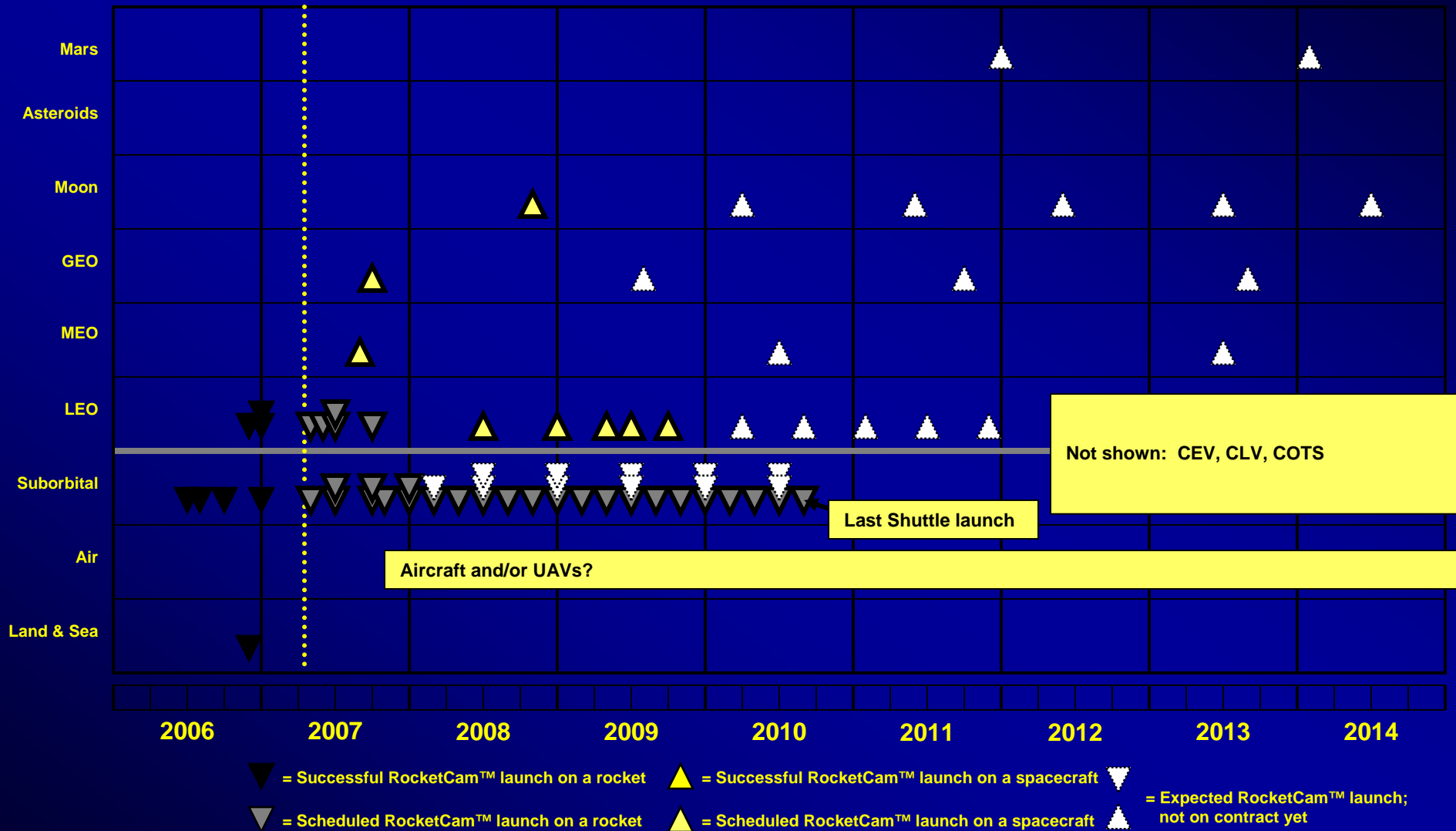
RocketCam Space Heritage



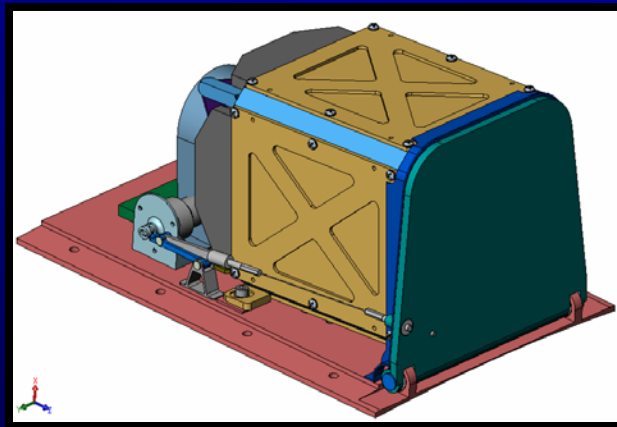
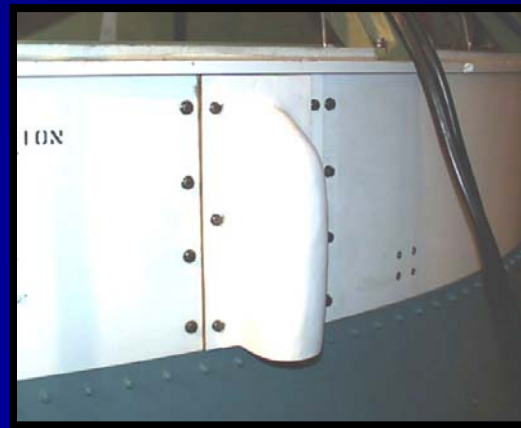
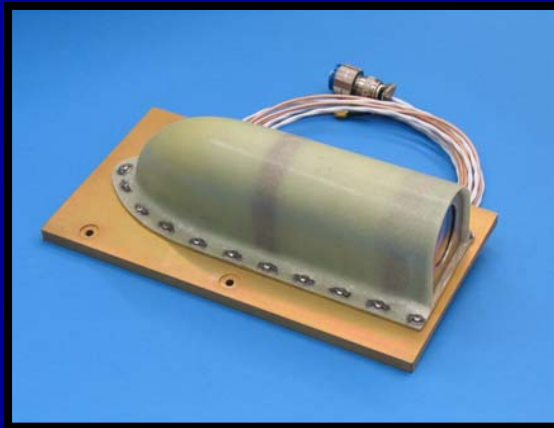
- **Launched on 49 projects since 1997**
 - 32 rockets to orbit (66 cameras)
 - 15 suborbital launches (33)
 - 2 spacecraft (6)
- **All relatively simple integrations**
- **All relatively low cost**
- **All successful**
- **Many more to come**



Future RocketCam Launches

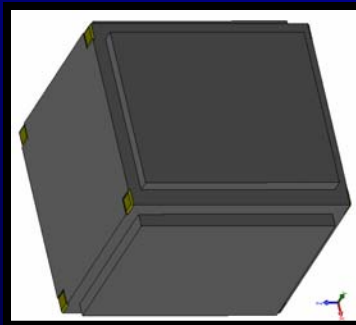
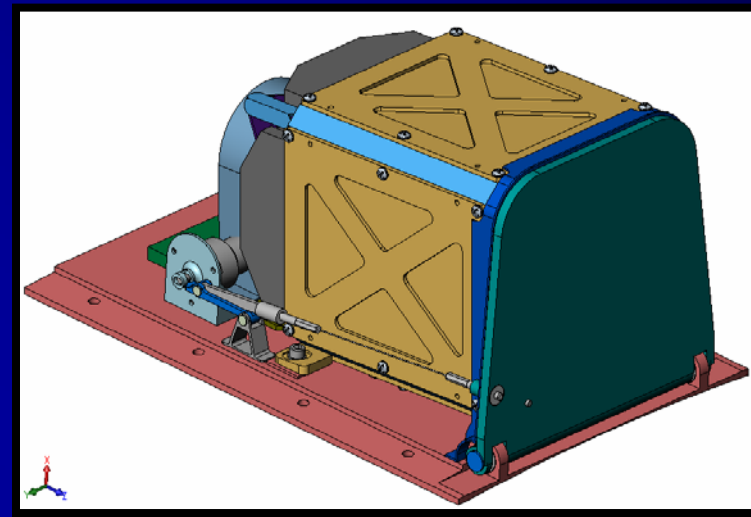
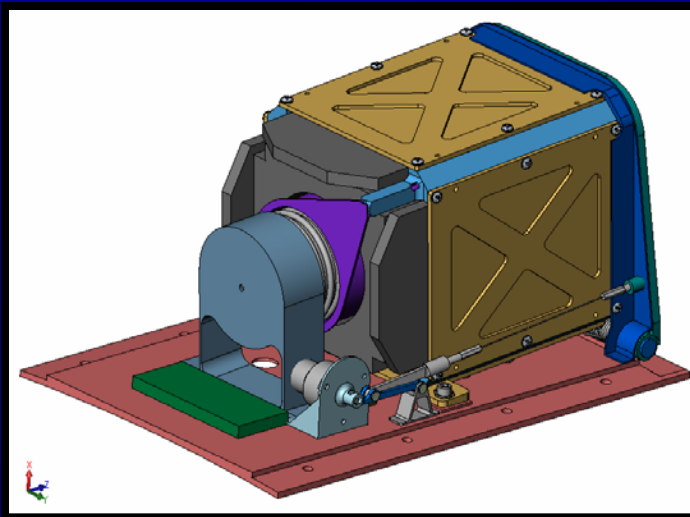


RocketCam to RocketPod (Delta II example)



Patented in U.S. and abroad

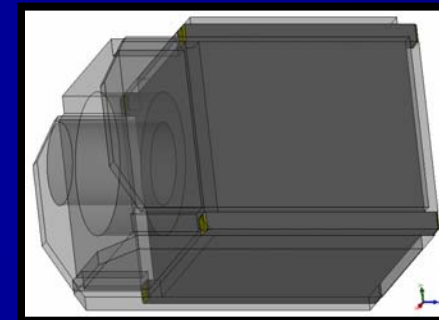
RocketPod Internal View



Std. CubeSat

Sep velocities:

- 2.6 m/s for 0.6 kg payload
- 2.0 m/s for 1.0 kg
- 1.4 m/s for 2.0 kg



"CubeSat+"

What Makes RocketPod™ Attractive?



Traditional Secondary Payload Model

RocketPod™ Secondary Payload Model

Unique payload design



Standard payload design

Single payload per launch



Multiple payloads per launch

Mission-specific interfaces



Standard interfaces

Mission-specific analyses



Enveloping analyses

Mission-specific trajectory



Standard deployment options

Mission-specific safety requirements



Standard safety requirements

Unique launch-site processing



Standard launch-site processing

Standardization enables lower recurring launch cost and a low-cost secondary launch program; can be key component of Responsive Space for kg-class systems

Current Activities



- **During 2004-2006, assessed integration issues for most U.S. ELVs, plus some spacecraft**
 - Delta II, Delta IV, Atlas 5, Minotaur, Taurus, Falcon 1
- **Two suborbital launches this summer on GSC P-9A/B**
 - Fairing fit-check on P-7 last fall
 - Follow-on launch 1Q 2008 if 2007 launches are successful
- **Launch option on Falcon-1 launch late this year**
 - Malaysian launch, via SAT
- **Working on DARPA STTR with Cal Poly SLO to identify and work orbital launch opportunities**
 - Focusing on mid-2008 and beyond
- **Actively discussing RocketPod applications for other rocket and spacecraft applications**
 - Commercial, NASA, defense
- **Ecliptic-Ames MOU approved today**

Fairing Fit-Check on GSC P-7



2006 Sep



2007 Apr 20

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